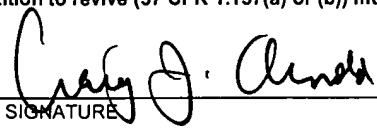


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371		ATTORNEY'S DOCKET NUMBER 96700/1023 U.S. APPLICATION NO. 10/538976 (37 CFR 1.5)
INTERNATIONAL APPLICATION NO. PCT/US2003/040407	INTERNATIONAL FILING DATE 18 December 2003 (18.12.2003)	PRIORITY DATE CLAIMED 23 December 2002 (23.12.2002)
TITLE OF INVENTION MODIFIED HEMOGLOBIN AND METHODS OF MAKING SAME		
APPLICANT(S) FOR DO/EO/US Seetharama A. Acharya and Belur N. Manjula		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. 3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input checked="" type="checkbox"/> The US has been elected (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input checked="" type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). a. <input type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). Items 11 to 20 below concern document(s) or information included: 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A preliminary amendment. 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A power of attorney and/or change of address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825. 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 20. <input checked="" type="checkbox"/> Other items or information: A copy of the International Preliminary Examination Report.		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/538976		INTERNATIONAL APPLICATION NO. PCT/US2003/040407		ATTORNEY'S DOCKET NUMBER 96700/1023	
The following fees have been submitted				CALCULATIONS	PTO USE ONLY
21. <input checked="" type="checkbox"/> Basic national fee..... \$300				\$ 300.00	
22. <input checked="" type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)..... \$100 All other situations..... \$200				\$ 300.00	
23. <input checked="" type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared and provided to the Office..... \$400 All other situations..... \$500				\$ 400.00	
TOTAL OF 21, 22 and 23 =				\$ 1000.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		x \$250	\$	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(h)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	27 - 20 =	7	x \$ 50	\$ 350.00	
Independent claims	2 - 3 =	0	x \$200	\$ 0	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	\$	
TOTAL OF ABOVE CALCULATIONS =				\$ 1350.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.					
SUBTOTAL =				\$	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	
TOTAL NATIONAL FEE =				\$	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
TOTAL FEES ENCLOSED =				\$ 1350.00	
				Amount to be refunded:	\$
				Amount to be charged:	\$
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$ <u>1350.00</u> to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>01-1785</u>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>					
<p>NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.</p>					
SEND ALL CORRESPONDENCE TO:					
Craig J. Arnold Amster, Rothstein & Ebenstein LLP 90 Park Avenue New York, New York 10016					
 SIGNATURE Craig J. Arnold NAME 34,287 REGISTRATION NUMBER					

**AMSTER
ROTHSTEIN
& EBENSTEIN LLP**

Intellectual Property Law

90 Park Avenue
New York NY 10016

Main 212 336 8000

Fax 212 336 8001

Web www.arelaw.com

Partners

Morton Amster
Jesse Rothstein (1934 - 2003)
Daniel Ebenstein
Philip H. Gottfried
Michael J. Berger
Neil M. Zipkin
Anthony F. Lo Cicero
Kenneth P. George
Abraham Kasdan, Ph.D.
Ira E. Silfin
Chester Rothstein
Craig J. Arnold
Kenneth M. Bernstein

Senior Counsel

Charles R. Macedo
Mark J. Rosenberg
Nancy M. Dodderidge
Joseph M. Casino

Associates

Neal L. Rosenberg
Patrick Boland*
John S. Economou
Michael V. Solomita
Holly Pekowsky
Michael P. Kenney
Marion P. Metelski

Max Vern

Dana R. Metes
Karl J. Kolbinger
Brian A. Comack
Richard S. Mandaro
Marc J. Jason
Elie H. Gendloff, Ph.D.
David Mitnick
Charles W. Rath
David A. Boag
Karen J. Bernstein
Matthieu Hausig
Jung S. Hahm
Reiko Kaji

Alan D. Miller, Ph.D.

Hsin-Hsin (Ginger) Liu
John A. Lepore
Norjean McCaffrey
Benjamin M. Halpern*
Matthew A. Fox
Michael J. Kasdan
Sasha B. Rieders
Rebecca R. Eisenberg

*Not admitted in New York

June 14, 2005

Via Express Mail
(EL 996369125 US)

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Craig J. Arnold
Direct 212 336 8070
E-mail carold@arelaw.com

"Express Mail" mailing label no.	EL 996369125 US
Date of Deposit:	June 14, 2005
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Name:	Joycelyn Giles Fenty
Signature:	<i>Joycelyn Giles Fenty</i>

Re: United States National Stage Filing
of PCT Application No. PCT/US2003/040407
Title: MODIFIED HEMOGLOBIN AND METHODS OF MAKING SAME
Applicants: Seetharama A. Acharya and Belur N. Manjula
Our File: 96700/1023

Dear Sir:

Pursuant to 37 U.S.C. § 371 and 37 C.F.R. § 1.495, enclosed please find an application for patent in the names of Seetharama A. Acharya and Belur N. Manjula, entitled "MODIFIED HEMOGLOBIN AND METHODS OF MAKING SAME," for entering the national stage in the United States of America, comprising the following:

1. a Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning a Filing Under 35 U.S.C. § 371;
2. a copy of PCT Application No. PCT/US2003/040407 as published under PCT Publication No. WO 2004/058291 A1, including cover page, specification (34 pages), claims (3 pages), figures 1 to 8 (10 pages), and International Search Report (2 pages);
3. a Preliminary Amendment (7 pages);

Commissioner for Patents

-2-

June 14, 2005

4. an Information Disclosure Statement including copies of the references cited in the International Search Report;
5. a check in the amount of \$1350.00 to cover the total filing fee; and
6. a return receipt postcard.

Please charge any outstanding amount or credit any overpayment to Deposit Account No. 01-1785. A duplicate copy of this letter is enclosed. Please also acknowledge receipt of the enclosed documents by stamping the enclosed postcard and returning the same to us.

Respectfully submitted,

AMSTER, ROTHSTEIN & EBENSTEIN LLP
Attorneys for Applicants
90 Park Avenue
New York, New York 10016
(212) 336-8000

Dated: New York, New York
June 14, 2005

By: Craig J. Arnold
Craig J. Arnold
Registration No. 34,287